

CLAIMS:

1. A clamping apparatus for use in clamping a member, the clamping apparatus comprising a support member for supporting the member to be clamped at a predetermined position, a mounting member attached to the support member, a clamp arm attached to the mounting member to be able to reciprocate with respect to the mounting member, a pressure applying mechanism, which is located between the mounting member and the clamp arm and applies pressure to the clamp arm, and a clamp bolt, which is located on the clamp arm and clamps the member to be clamped between the clamp bolt and the support member,

wherein a groove is formed in the clamp arm, the clamp bolt is attached to the guide groove such that the position of the clamp bolt is adjustable,

wherein the clamp bolt is inserted in the guide groove, a first lock nut and a second lock nut are screwed to the clamp bolt to sandwich the clamp arm from above and below, and the clamp bolt is secured at a predetermined position of the clamp arm by securely tightening the first lock nut and the second lock nut to the clamp arm,

wherein an upper washer is located between the clamp arm and the first lock nut and a lower washer is located between the clamp arm and the second lock nut, the upper washer and the lower washer each have a rotation restricting rib, the rotation restricting ribs are engaged with the upper and lower rims of the clamp arm for restricting rotation of the upper washer and the lower washer,

wherein the second lock nut is fixed to the lower surface of the lower washer, and

wherein a manipulation portion is provided on the clamp bolt above the clamp arm, the manipulation portion being used for rotating the clamp bolt in a state where the member to be clamped is clamped between the clamp bolt and the support member.

2. The clamping apparatus according to Claim 1, wherein an engaging hole is formed at an upper end of the clamp bolt, the engaging hole being engageable with the distal end of a wrench for rotational manipulation.

3. The clamping apparatus according to Claim 1, wherein the pressure applying mechanism is a toggle mechanism.
4. The clamping apparatus according to Claim 1, wherein a pad is located at the distal end of the clamp bolt, the pad abuts against an upper surface of the member to be clamped and permits the clamp bolt to rotate relative to the pad.